

AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) A method of reducing loss of neurogenesis resulting from neuroinflammation due to cranial irradiation in an individual, the method comprising:

identifying an individual at risk for suffering from loss of neurogenesis resulting from chronic neuroinflammation due to cranial irradiation;

contacting said individual with a dose of a non-steroidal anti-inflammatory drug (NSAID) that crosses the blood-brain barrier, which dose is effective to reduce neuroinflammatory activity by recruitment or activation of monocyte/microglial cells; and

measuring cognitive function following cranial irradiation, wherein a progressive decline in cognitive function is linked to impaired neurogenesis;

wherein said loss of neurogenesis resulting from chronic neuroinflammation due to said cranial irradiation in an individual is reduced.

2. (Canceled)

3. (Previously Presented) The method according to Claim 1, wherein said radiation is ionizing radiation.

4. (Previously Presented) The method according to Claim 1, wherein said contacting is performed prior to said irradiation.

5. (Previously Presented) The method according to Claim 1, wherein said contacting is performed subsequent to said irradiation.

6. (Canceled)

7. (Withdrawn) The method according to Claim 1, wherein said anti-inflammatory agent specifically blocks IL-6 activity.

8. (Withdrawn) The method according to Claim 1, wherein said anti-inflammatory agent blocks MCP-1 activity.

9-13. (Canceled)

14. (Original) The method according to Claim 1, wherein said neurogenesis is central nervous system neurogenesis.

15-20. (Canceled)

21. (Previously Presented) The method according to Claim 1, wherein said non-steroidal anti-inflammatory drug is indomethacin.

22. (Canceled)

23. (New) A method of reducing loss of neurogenesis resulting from neuroinflammation due to cranial irradiation in an individual, the method comprising:

identifying an individual at risk for suffering from loss of neurogenesis resulting from chronic neuroinflammation due to cranial irradiation;

administering a dose of a non-steroidal anti-inflammatory drug (NSAID) that crosses the blood-brain barrier to said individual on a daily or semi-daily basis for one or more months, which dose is effective to reduce chronic neuroinflammatory activity resulting from recruitment or activation of monocyte/microglial cells, thereby reducing loss of neurogenesis resulting from said chronic neuroinflammation; and

measuring cognitive function following said cranial irradiation to determine if a progressive decline in cognitive function is present, wherein the progressive decline is indicative of impaired neurogenesis.

24. (New) The method according to Claim 23, wherein the NSAID is indomethacin.